

REMARKS:

Applicants request reconsideration and withdrawal of the outstanding rejections based on the foregoing amendments and following remarks. Applicants express gratitude to the Examiner for the indication of allowable subject matter in claims 7, 9, and 10. Claims 3, 7, 9, and 10 have been amended and new claims 19-21 have been added. No new matter has been added.

Response to Rejections under 35 U.S.C. § 103

Claims 3, 5, 6, 8, and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Thangadurai et al. (J. Am. Ceram. Soc. 2003). The Examiner asserted that Thangadurai discloses a solid ion conductor comprising a garnet-like crystal structure having a composition of $\text{Li}_5\text{La}_3\text{Nb}_2\text{O}_{12}$ or $\text{Li}_5\text{La}_3\text{Ta}_2\text{O}_{12}$. The Examiner acknowledges that Thangadurai does not disclose that L (Li) has a subscript of “5+x” wherein x is greater than 0 and less than or equal to 2, but asserts that it would have been obvious because one of ordinary skill would have expected the compounds to have the same properties, e.g., $\text{Li}_{5.01}\text{La}_3\text{Nb}_2\text{O}_{12}$ compared to $\text{Li}_5\text{La}_3\text{Nb}_2\text{O}_{12}$. With regard to claim 11, the Examiner asserts that this compound would inherently be stable towards elemental lithium at lithium activities corresponding to a voltage of 5V. Applicants submit that independent claim 3, as amended, is not rendered obvious by Thangadurai because claim 3 has been limited to recite the limitation “wherein at least one of A and G is a divalent cation.” Written description support for this limitation can be found on page 7, paragraph 2 of the specification and the limitation corresponds to the subject matter that the Examiner acknowledged as distinguishing over Thangadurai

under "Allowable Subject Matter" on page 4 of the Office Action. Accordingly, Applicants submit that claim 3, as amended, is patentable over Thangadurai. Claims 5, 6, 8, and 11, depending from claim 3, should be patentable for at least the same reason. Applicants respectfully request that the rejection of claims 3, 5, 6, 8, and 11 be withdrawn.

Response to Allowable Subject Matter

The Examiner objected to claims 7, 9, and 10 as depending from a rejected base claim, but acknowledged that the claims contained allowable subject matter. Accordingly, to overcome the objection and put these claims in allowable form, claim 7 has been rewritten in independent form to recite all of the limitations of the rejected base claim, and claims 9 and 10 have been amended to depend from claim 7. Thus, Applicants respectfully request that the objection be withdrawn and that claims 7, 9, and 10 be allowed.

New Claims

New claims 19-21 have been added to define further embodiments of the invention.

Claim 19 is directed to a solid ion conductor that has a garnet-like crystal structure and a stoichiometric composition $L_{5+x}AyG_zM_2O_{12}$, wherein L is in each case independently an arbitrary preferably monovalent cation, A is in each case independently a monovalent, divalent, trivalent or tetravalent cation, G is in each case independently a monovalent, divalent, trivalent or tetravalent cation M is in each case

independently a trivalent, tetravalent or pentavalent cation,

$1 \leq x \leq 2$, $0 \leq y \leq 3$, $0 \leq z \leq 3$ and wherein O can be partially or completely replaced by divalent and/or trivalent anions such as e.g. N^{3-} . Written description support for Li_6 is found throughout the specification, e.g., on page 7, second paragraph, and $1 \leq x \leq 2$ falls in the range of $0 < x \leq 2$ as originally recited in claim 3. Thangadurai does not disclose or suggest the solid ion conductor wherein x is greater than 0. Thus, Applicants submit that new claim 19 is allowable of the cited reference.

New claim 20 is directed to a process for producing a solid ion conductor as recited in claim 3, as currently amended. Written description support for this claim can be found in original claims 3, 12, and 15 and on page 7, paragraph 2 of the specification. Applicants respectfully request that, upon allowance of product claim 3, process of producing claim 20 be rejoined and allowed for the same reasons.

New claim 21 is directed to a process for producing a solid ion conductor as recited in claim 7, as currently amended. Written description support for this claim can be found in original claims 7, 12, and 15. Applicants respectfully request that, upon allowance of product claim 7, process of producing claim 21 be rejoined and allowed for the same reasons.

Conclusions

In view of the above amendments and remarks hereto, Applicants believe that all of the Examiner's rejections set forth in the June 10, 2010 Office Action have been fully overcome and that the present claims fully satisfy the patent statutes. Applicants, therefore, believe that the application is in condition for allowance.

The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

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